

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: March 10, 2004, 14:55:14 ; Search time 23 Seconds
(without alignments)
1479.196 Million cell updates/sec

Title: US-09-802-285A-2
Perfect score: 3494
Sequence: 1 MTTKIFKRIIVFAVIALSSG.....KGKMLTLITNGKQLVLVP 659

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep.*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep.*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep.*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep.*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep.*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	3494	100.0	659	1	US-08-258-639A-4
2	3494	100.0	659	2	US-08-900-951-4
3	3494	100.0	659	5	PCT-US95-07391A-4
4	164	4.7	649	4	US-09-134-000C-5302
5	126.5	3.6	698	4	US-09-134-001C-3632
6	124	3.5	23	1	US-08-258-639A-9
7	124	3.5	23	1	US-08-900-951-9
8	124	3.5	23	5	PCT-US95-07391A-9
9	119	3.4	23	1	US-08-258-639A-10
10	119	3.4	23	2	US-08-900-951-10
11	119	3.4	23	5	PCT-US95-07391A-10
12	119	3.4	1138	1	US-07-973-320-2
13	119	3.4	1138	1	US-07-973-320-4
14	118	3.4	772	1	US-08-258-639A-2
15	118	3.4	772	1	US-08-900-951-2
16	118	3.4	772	5	PCT-US95-07391A-2
17	117.5	3.4	1028	4	US-09-543-681A-7181
18	116	3.3	4536	4	US-09-180-422B-27
19	116	3.3	4536	4	US-09-079-030-1
20	115.5	3.3	1168	1	US-08-620-717A-9
21	114.5	3.3	1167	2	US-08-485-568A-6
22	114.5	3.3	1167	2	US-08-590-554A-6
23	114.5	3.3	1167	2	US-09-184-223-6
24	113.5	3.2	1398	1	US-08-750-532-9
25	113.5	3.2	1398	3	US-08-894-818B-8
26	113.5	3.2	1398	4	US-09-445-472-6
27	111	3.2	927	4	US-09-134-001C-4831

28	110	3.1	4563	4	US-09-108-006C-1	Sequence 1, Appli
29	109	3.1	951	3	US-08-816-346-58	Sequence 58, Appl
30	109	3.1	951	3	US-09-335-411-58	Sequence 58, Appl
31	109	3.1	952	2	US-08-788-674-5	Sequence 5, Appli
32	109	3.1	952	3	US-08-816-346-4	Sequence 4, Appli
33	109	3.1	952	3	US-09-335-411-4	Sequence 4, Appli
34	108.5	3.1	1096	4	US-09-134-000C-5764	Sequence 5764, Ap
35	108	3.1	1015	4	US-09-134-000C-6204	Sequence 6204, Ap
36	106	3.0	884	4	US-09-328-352-4598	Sequence 4598, Ap
37	106	3.0	945	4	US-09-198-452A-1030	Sequence 1030, Ap
38	106	3.0	1375	3	US-09-210-361-4	Sequence 4, Appli
39	106	3.0	1375	4	US-09-740-274-4	Sequence 4, Appli
40	105	3.0	443	4	US-09-328-352-6322	Sequence 6322, Ap
41	105	3.0	741	4	US-09-252-991A-22440	Sequence 22440, A
42	105	3.0	965	4	US-09-437-277-3	Sequence 3, Appli
43	104	3.0	1742	4	US-09-386-962C-4	Sequence 4, Appli
44	104	3.0	1849	4	US-08-851-567B-49	Sequence 49, Appl
45	104	3.0	2516	4	US-08-851-567B-47	Sequence 47, Appl

ALIGNMENTS

RESULT 1
US-08-258-639A-4
; Sequence 4, Application US/08258639A
; Patent No. 5681733

; GENERAL INFORMATION:
; APPLICANT: Su, Hongsheng
; APPLICANT: Blain, Francoise
; APPLICANT: Bennett, Clark
; APPLICANT: Gu, Kangfu
; APPLICANT: Zimmermann, Joseph
; APPLICANT: Musil, Roy
; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
; TITLE OF INVENTION: Flavobacterium heparinum
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hale and Dorr
; STREET: 1455 Pennsylvania Avenue, N.W.
; CITY: Washington, D.C.
; COUNTRY: U.S.A.
; ZIP: 20004

; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/258,639A
; FILING DATE: 10 JUNE 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Healey, William J.
; REGISTRATION NUMBER: 36,160
; REFERENCE/DOCKET NUMBER: 104385.116
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942-8400
; TELEFAX: (202)942-8484
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 659 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-258-639A-4

Query Match 100.0%; Score 3494; DB 1; Length 659;
Best Local Similarity 100.0%; Pred. No. 4.1e-308;
Matches 659; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MTTKIFKRIIVFAVIALSSGSIITKDFHINLEYSGLKYNKVAAGNYDDAA 60

APPLICANT: ZIMMERMANN, Joseph
TITLE OF INVENTION: Nucleic Acid Sequences And Expression
SYSTEMS For Heparinase II And Heparinase III Derived From
TITLE OF INVENTION: Flavobacterium heparinum
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hale and Dorr
STREET: 1455 Pennsylvania Avenue, N.W.
CITY: Washington, D.C.
COUNTRY: U.S.A.
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/07391A
FILING DATE: 09-JUNE-1995
CLASSIFICATION:
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: 08/258,639
FILING DATE: 10 JUNE 1994
ATTORNEY/AGENT INFORMATION:
NAME: BAKER, Hollie L.
REGISTRATION NUMBER: 31,321
REFERENCE/DOCKET NUMBER: 104385.116PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)942-8400
TELEFAX: (202)942-8484
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 659 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US95-07391A-4

Query Match 100.0%; Score 3494; DB 5; Length 659;
Best Local Similarity 100.0%; Pred. No. 4.1e-308;
Matches 659; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MTTKIFKRIIVFAVIALSSGNILAQSSITRKDFHINLSEYGLKYNKAAAGNYDDAA 60
Db |||||
1 MTTKIFKRIIVFAVIALSSGNILAQSSITRKDFHINLSEYGLKYNKAAAGNYDDAA 60
Qy 61 KALLAAYREKSKAREPDSNAEKPADIQPTDKVTREMAKALVHQFQPHKGYGFDYDK 120
Db |||||
61 KALLAAYREKSKAREPDSNAEKPADIQPTDKVTREMAKALVHQFQPHKGYGFDYDK 120
Qy 121 DINQMMPVKDNEVRWQLHRVKKWQAMALVYHATGDEKYAREWYQYSDWARKNPLGLSQ 180
Db |||||
121 DINQMMPVKDNEVRWQLHRVKKWQAMALVYHATGDEKYAREWYQYSDWARKNPLGLSQ 180
Qy 181 DNDKFWVRPLEVSRVQSLPTFSLFVNSPAPFAPLMEFLNSHQADYLSHYAEQGN 240
Db |||||
181 DNDKFWVRPLEVSRVQSLPTFSLFVNSPAPFAPLMEFLNSHQADYLSHYAEQGN 240
Qy 241 HRLFEAQNLKAFAGVSFPFKDSPPRWOTGISVLNTEIKKQVADGMQFELSPIYHVAID 300
Db |||||
241 HRLFEAQNLKAFAGVSFPFKDSPPRWOTGISVLNTEIKKQVADGMQFELSPIYHVAID 300
Qy 301 IFLKAYGSAKRVNLEKEFPQSVQVQVENMIMALISISLPDYNTPMFGSDWITDKNFRMAQ 360
Db |||||
301 IFLKAYGSAKRVNLEKEFPQSVQVQVENMIMALISISLPDYNTPMFGSDWITDKNFRMAQ 360
Qy 361 FASWVRPFAQAIIKYFATDQKQKAPNPLSKALSNAGFYFRSGWCKNATVMWLKASPP 420
Db |||||
361 FASWVRPFAQAIIKYFATDQKQKAPNPLSKALSNAGFYFRSGWCKNATVMWLKASPP 420
Qy 421 GEFHAQPNGTGTFELFKGRNFTPDAGVFVYSGDEAIMKLRNRYQTRIHSTLTLDNQNV 480
Db |||||
421 GEFHAQPNGTGTFELFKGRNFTPDAGVFVYSGDEAIMKLRNRYQTRIHSTLTLDNQNV 480

Qy 481 ITKARONKWTGNLNDLVITYNPSYPLNDHORSVLINKYFLVIDRAIGATGNLGVHW 540
Db |||||
481 ITKARONKWTGNLNDLVITYNPSYPLNDHORSVLINKYFLVIDRAIGATGNLGVHW 540
Qy 541 QLKEDSNPVFDKTKNRVYTYRDGNLMTQSLNADRTSLNEERGKVSYYVYNKELKRPVF 600
Db |||||
541 QLKEDSNPVFDKTKNRVYTYRDGNLMTQSLNADRTSLNEERGKVSYYVYNKELKRPVF 600
Qy 601 FEKPKXNAGTQNFVSIVPYDQKAPESIREKNGNDFEKGKLNLTITNGKQOLVLP 659
Db |||||
601 FEKPKXNAGTQNFVSIVPYDQKAPESIREKNGNDFEKGKLNLTITNGKQOLVLP 659

RESULT 4
US-09-134-000C-5302
; Sequence 5302, Application US/09134000C
; Patent No. 6617156
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; FILE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-032
; CURRENT APPLICATION NUMBER: US/09/134,000C
; CURRENT FILING DATE: 1998-08-13
; PRIOR APPLICATION NUMBER: US 60/055,778
; PRIOR FILING DATE: 1997-08-15
; NUMBER OF SEQ ID NOS: 6812
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5302
; LENGTH: 649
; TYPE: PRT
; ORGANISM: Enterococcus faecalis
US-09-134-000C-5302

Query Match 4.7%; Score 164; DB 4; Length 649;
Best Local Similarity 20.1%; Pred. No. 5.4e-06;
Matches 125; Conservative 91; Mismatches 213; Indels 194; Gaps 31;

Qy 120 KDINQMMPVKDNEVRWQLHRVKKWQAMALVYHATGDEKYAREWYQYSDWARKNPLGLS 179
Db |||||
70 KEYAWNRYPDDEPWFMLSRQSLVLAQAYALTKKERYLQKWHSLLDIFI--NDEGEP 127
Qy 180 QDNDKFWVRPLEVSRVQSLPTFSLFVNSPAPFAPLMEFL-----NSYHQOQADYLS 232
Db |||||
128 NSTNRDVMRELDVGIRVTN-----WKKSITYIPIADRLGLGDDVNLNALLIHLDFLE 180
Qy 233 THYAEQGNHRLFE-----AQNLKAFAGVSFPFKDSPPRWOTGISVLNTEIKKQVYA 283
Db |||||
181 RSYDK--YRLSNWGVLAIGMAAIDLF---LPGLVTS--KORDLIWSRLAEQLDLPYS 233
Qy 284 DGMQFELSPIYHVAIDIFLKAYGSAKRVNLEKEFPQSVQVQVENMIMALISISLP----- 339
Db |||||
234 DGIHWEQSPLY-----QHEVLMTFVYLQ--ISEYLEVOLPLDLR 271
Qy 340 -DYNTPMFGSDWITDKN-----FRMAQFASWVRPFA 371
Db |||||
272 MKLKTPIFSTHLYADNQIILNPINDSDHVNPHYVDYIRKLGFIFEPSMTANMLKWTGD 331
Qy 372 -----QAIKYFATDQKQKAPNPLSKALSNAGFYFRSGWCKNATVMWLKASP----- 419
Db |||||
332 LYERIWETMK-----PKEL-----PRG---BSSGLMAYKAEDIYFTL 366
Qy 420 ----PGFHAQPNGTGTFELFKGRNFTPDAGVFVYSGDEAIMKLRNRYQTRIHSTLT- 474
Db |||||
367 ENGLHSGAHGASTGGFTLQGGDDLFSDSRYVNVKSERLQ-----KECASHNTMTFIA 422
Qy 475 DNQNMVITKARONKWTGNLNDLVITYNPSYPLNDHORSVLINKYFLVIDRAIGATG 534
Db |||||
423 ENPHTLVS-----DWT-----GYDKL--PTPELQQI--KELSVGFFAE----- 456
Qy 535 NLGVHWQLKEDSNP-VFDKTKNRVYTYRDGNLMTQSLNADRTSLNEERGKVSYYVYN- 591
Db |||||

Db 457 ---CGWLKADQNPMEF---RSFTYLSINSWIIDSPA-----GQKETEITSTYNLA 504
 QY 592 ---KELKRAFAVPEKPKN---AGTQNFYSIVVYDQKAPKPEISRENK-----GNDF 638
 Db 505 PSINCOKEAHRFALTNNKHYYTLFFAGGOTQOSVA-----KGSEIYNQINHEPRLSNKF 558
 QY 639 ---BKGLNLTLLTINGKQQLVLP 659
 Db 559 CVKTGKEIQATVISPLEDIQITP 581

RESULT 5

US-09-134-001C-3632
 ; Sequence 3632, Application US/09134001C
 ; Patent No. 6380370
 ; GENERAL INFORMATION:
 ; APPLICANT: Lynn Doucette-Stamm et al
 ; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
 ; FILE REFERENCE: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
 ; CURRENT FILING DATE: 1998-08-13
 ; PRIOR APPLICATION NUMBER: US/09/134,001C
 ; PRIOR FILING DATE: 1997-11-08
 ; PRIOR APPLICATION NUMBER: US 60/064,964
 ; PRIOR FILING DATE: 1997-08-14
 ; NUMBER OF SEQ ID NOS: 5674
 ; SEQ ID NO 3632
 ; LENGTH: 698
 ; TYPE: PRT
 ; ORGANISM: Staphylococcus epidermidis
 US-09-134-001C-3632

Query Match 3.6%; Score 126.5; DB 4; Length 698;
 Best Local Similarity 18.6%; Pred. No. 0.015;
 Matches 139; Conservative 109; Mismatches 284; Indels 217; Gaps 31;

QY 9 IIVFAIALSSGNI-LAQSSTIR--KDFDHINLEYGLEKYNKAVAAGN-----Y 56
 Db 32 VFIFALVRLGLYLQAGSHYKQLKNDENIT-----VNESVPRGILDRNGKVLV 83
 QY 57 DDAKALLAYREKAREPDSNAEKPAD-IRPIDKVTREMAKALVHQPHKGYG 115
 Db 84 DNASKOSITYTRNRKTSOKEMLNTAKLTDLIKMDTKITER--DK-----127
 QY 116 FDYGDINWQWMP-----VKDNEVRMQLHRV--KWQA 146
 Db 128 ---KDFWIQYPSFAPKLMRKEQLMLEGDSISQDQFTQLRDKTKGKQLKQTKKQLQV 183
 QY 147 MALV-----YHATGDEKYAREWVYQYSDMARKNPLGLSQDND 183
 Db 184 LAIVREMNAGSTLDPQTIKNEVDSEKEVAAYSQQLSKLPGVNTWMDWKYPYG---DTL 240
 QY 184 KFWVRPLEVSRVSLPTFSFLVNSPAFTPAFLMEFLNSVHQQAADYLSGTHYAGNHL 243
 Db 241 RGIFG--DVSTSTGIPKELT-----EQYLSKGYSRNDRVCKSYLEYQYEDV 285
 QY 244 FEAQNLFAGVFEFFKDSRWRQTGISVLNTEIKQVYADGMQFELSPIVHVAIDFL 303
 Db 286 LKGTKKQM-----KYITDKSGRVISSEVLNPGSR-----GHDQLT-----IDLD 326
 QY 304 KAYGSAKRVN--LREKFPQSVQTVENNIMALISISLPDYNTPMFGDSWITDKNFRMAQF 361
 Db 327 Q-----KKVESLLEKQISKLRSQAKOMDNALMVVQNPKNQDILAIAGKQIDKQKLKY 381
 QY 362 --ASWARVFPANQAIK-YFATDGGKQAPN-----FLSKALSNAGFYFRSGWDKNA-----410
 Db 382 DIGNFTAQYTVGSSVKGOTLLIAGYQNKAINTGETWDEPLKFGGLTKRSYFNKNGHVS 441
 QY 411 -----TVMVLKASPPGFEHQAQPDNGTFFELFIKGRNFTFPDAGVVFVYSDE 454
 Db 442 DDQALMHSSNVVMFKTALKLAGPYTSGMSLPNN-----IADAG-----481

QY 455 AIMKLRNWRQTRIHSHTLTDNQNMVITKARQNKWETGNLVDLVTNPSYPMLDHQRSV 514
 Db 482 --RKURKGNLQVGLGKLTGIDLPNETPGQIEPLTNNPGNYDLAIQGYDTYTPQLSQYV 539
 QY 515 LFINKKYFLV---IDRAIGEATGNLGVHQLKEDSNPFDKTKNRVYVTVYRQGNLMIQS 571
 Db 540 STIANDGYRIQPHIGLSIYESIN-----KDETGLRKIKKGNVKNKNSNDISKEV 591
 QY 572 LNADRTSLNEEGKSVYVYNKELKRP-----AFVFE--KPKKNAGTQNFVSIYVP---619
 Db 592 QEGFKMAFNEKQG-TGYASFRNTVVPVPSAGKTGTAEVFDGEPVNSTYIGYAPVDDPKLS 650
 QY 620 ----YDGOXKAPISIRENKNGDFEKGKLN 644
 Db 651 FSIIVTNQVPPPPWL---NGGDLGRDVIN 676

RESULT 6

US-08-258-639A-9
 ; Sequence 9, Application US/08258639A
 ; Patent No. 5681733
 ; GENERAL INFORMATION:
 ; APPLICANT: Su, Hongsheng
 ; APPLICANT: Blain, Francoise
 ; APPLICANT: Bennett, Clark
 ; APPLICANT: Gu, Kangfu
 ; APPLICANT: Zimmermann, Joseph
 ; APPLICANT: Musil, Roy
 ; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
 ; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
 ; TITLE OF INVENTION: Flavobacterium heparinum
 ; NUMBER OF SEQUENCES: 26
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Hale and Dorr
 ; STREET: 1455 Pennsylvania Avenue, N.W.
 ; CITY: Washington, D.C.
 ; COUNTRY: U.S.A.
 ; ZIP: 20004
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/258,639A
 ; FILING DATE: 10 JUNE 1994
 ; CLASSIFICATION: 435
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Healey, William J.
 ; REGISTRATION NUMBER: 36,160
 ; REFERENCE/DOCKET NUMBER: 104385.116
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (202)942-8400
 ; TELEFAX: (202)942-8484
 ; INFORMATION FOR SEQ ID NO: 9:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 23 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: peptide
 US-08-258-639A-9

Query Match 3.5%; Score 124; DB 1; Length 23;
 Best Local Similarity 100.0%; Pred. No. 9.3e-05;
 Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 414 VLKASPPGFEHQAQPDNGTFFELFI 436
 Db 1 VLKASPPGFEHQAQPDNGTFFELFI 23

RESULT 7

US-08-900-951-9

```
; Sequence 9, Application US/08900951
; Patent No. 5919693
; GENERAL INFORMATION:
; APPLICANT: Su, Hongsheng
; APPLICANT: Blain, Francoise
; APPLICANT: Bennett, Clark
; APPLICANT: Gu, Kangfu
; APPLICANT: Zimmermann, Joseph
; APPLICANT: Musil, Roy
; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
; TITLE OF INVENTION: Flavobacterium heparinum
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hale and Dorr
; STREET: 1455 Pennsylvania Avenue, N.W.
; CITY: Washington, D.C.
; COUNTRY: U.S.A.
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC DOS/MS DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/900,951
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/258,639
; FILING DATE: 10 JUNE 1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Healey, William J.
; REGISTRATION NUMBER: 36,160
; REFERENCE/DOCKET NUMBER: 104385.116
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942 8400
; TELEFAX: (202)942 8484
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 23 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-900-951-9

Query Match 3.5%; Score 124; DB 2; Length 23;
Best Local Similarity 100.0%; Pred. No. 9.3e-05;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 414 VLKASPPGEFHAQPDNGTFELFI 436
Db 1 VLKASPPGEFHAQPDNGTFELFI 23

RESULT 8
US-08-900-951-9
; Sequence 9, Application PC/TUS9507391A
; Patent No. 5919693
; GENERAL INFORMATION:
; APPLICANT: IBEX TECHNOLOGIES and
; APPLICANT: ZIMMERMANN, Joseph
; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
; TITLE OF INVENTION: Flavobacterium heparinum
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hale and Dorr
; STREET: 1455 Pennsylvania Avenue, N.W.
; CITY: Washington, D.C.
; COUNTRY: U.S.A.
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/258,639A
; FILING DATE: 10 JUNE 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Healey, William J.
; REGISTRATION NUMBER: 36,160
; REFERENCE/DOCKET NUMBER: 104385.116
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942 8400
; TELEFAX: (202)942 8484
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 23 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-900-951-9

Query Match 3.5%; Score 124; DB 2; Length 23;
Best Local Similarity 100.0%; Pred. No. 9.3e-05;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 414 VLKASPPGEFHAQPDNGTFELFI 436
Db 1 VLKASPPGEFHAQPDNGTFELFI 23

RESULT 9
US-08-258-639A-10
; Sequence 10, Application US/08258639A
; Patent No. 5681733
; GENERAL INFORMATION:
; APPLICANT: Su, Hongsheng
; APPLICANT: Blain, Francoise
; APPLICANT: Bennett, Clark
; APPLICANT: Gu, Kangfu
; APPLICANT: Zimmermann, Joseph
; APPLICANT: Musil, Roy
; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
; TITLE OF INVENTION: Flavobacterium heparinum
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hale and Dorr
; STREET: 1455 Pennsylvania Avenue, N.W.
; CITY: Washington, D.C.
; COUNTRY: U.S.A.
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/258,639A
; FILING DATE: 10 JUNE 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Healey, William J.
; REGISTRATION NUMBER: 36,160
; REFERENCE/DOCKET NUMBER: 104385.116
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942 8400
; TELEFAX: (202)942 8484
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 23 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; PCT-US95-07391A-9

Query Match 3.5%; Score 124; DB 5; Length 23;
Best Local Similarity 100.0%; Pred. No. 9.3e-05;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 414 VLKASPPGEFHAQPDNGTFELFI 436
Db 1 VLKASPPGEFHAQPDNGTFELFI 23

PCT-US95-07391A-9
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/07391A
; FILING DATE: 09-JUNE-1995
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/258,639
; FILING DATE: 10 JUNE 1994
; ATTORNEY/AGENT INFORMATION:
; NAME: BAKER, Hollie L.
; REGISTRATION NUMBER: 31,321
; REFERENCE/DOCKET NUMBER: 104385.116PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942-8400
; TELEFAX: (202)942-8484
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 23 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; PCT-US95-07391A-9
```

LENGTH: 23 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-258-639A-10

Query Match 3.4%; Score 119; DB 1; Length 23;
Best Local Similarity 91.3%; Pred. No. 0.00026;
Matches 21; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 101 KALVHQFQPHKGYGFDYGDIN 123
Db 1 KALVHWFPHKGYGFDYGDIN 23

RESULT 10

US-08-900-951-10
Sequence 10, Application US/08900951
Patent No. 5919693
GENERAL INFORMATION:
APPLICANT: Su, Hongsheng
APPLICANT: Blain, Francoise
APPLICANT: Bennett, Clark
APPLICANT: Gu, Kangfu
APPLICANT: Zimmermann, Joseph
APPLICANT: Musil, Roy
TITLE OF INVENTION: Nucleic Acid Sequences And Expression
TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
TITLE OF INVENTION: Flavobacterium heparinum
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hale and Dorr
STREET: 1455 Pennsylvania Avenue, N.W.
CITY: Washington, D.C.
COUNTRY: U.S.A.
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/900,951
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/258,639
FILING DATE: 10 JUNE 1994
ATTORNEY/AGENT INFORMATION:
NAME: Healey, William J.
REGISTRATION NUMBER: 36,160
REFERENCE/DOCKET NUMBER: 104385.116
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)942 8400
TELEFAX: (202)942 8484
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 23 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-900-951-10

Query Match 3.4%; Score 119; DB 2; Length 23;
Best Local Similarity 91.3%; Pred. No. 0.00026;
Matches 21; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 101 KALVHQFQPHKGYGFDYGDIN 123
Db 1 KALVHWFPHKGYGFDYGDIN 23

RESULT 11

PCT-US95-07391A-10
Sequence 10, Application PC/TUS9507391A
GENERAL INFORMATION:
APPLICANT: IBEX TECHNOLOGIES and
APPLICANT: ZIMMERMANN, Joseph
TITLE OF INVENTION: Nucleic Acid Sequences And Expression
TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
TITLE OF INVENTION: Flavobacterium heparinum
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hale and Dorr
STREET: 1455 Pennsylvania Avenue, N.W.
CITY: Washington, D.C.
COUNTRY: U.S.A.
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/07391A
FILING DATE: 09-JUNE-1995
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/258,639
FILING DATE: 10 JUNE 1994
ATTORNEY/AGENT INFORMATION:
NAME: BAKER, Hollie L.
REGISTRATION NUMBER: 31,321
REFERENCE/DOCKET NUMBER: 104385.116PCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)942-8400
TELEFAX: (202)942-8484
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 23 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: peptide
PCT-US95-07391A-10

Query Match 3.4%; Score 119; DB 5; Length 23;
Best Local Similarity 91.3%; Pred. No. 0.00026;
Matches 21; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 101 KALVHQFQPHKGYGFDYGDIN 123
Db 1 KALVHWFPHKGYGFDYGDIN 23

RESULT 12

US-07-973-320-2
Sequence 2, Application US/07973320
Patent No. 5286486
GENERAL INFORMATION:
APPLICANT: Payne, Jewel M.
APPLICANT: Fu, Jenny M.
TITLE OF INVENTION: No. 5286486el Bacillus thuringiensis Gene
TITLE OF INVENTION: Encoding a Coleopteran-Active Toxin
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: David R. Saliwanchik
STREET: 2421 N.W. 41st Street, Suite A-1
CITY: Gainesville
STATE: FL
COUNTRY: USA
ZIP: 32606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25

```

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/973,320
FILING DATE: 19921106
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/788,638
FILING DATE: 6-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: Saliwanchik, David R.
REGISTRATION NUMBER: 31,794
REFERENCE/DOCKET NUMBER: MA68.C1
TELEPHONE: 904-375-8100
TELEFAX: 904-372-5800
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 1138 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: YES
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Bacillus thuringiensis
STRAIN: dakota
INDIVIDUAL ISOLATE: HD511
IMMEDIATE SOURCE:
LIBRARY: Lamdagem (TM)-11 library of J.M. Fu
CLONE: 511
US-07-973-320-2

Query Match 3.4%; Score 119; DB 1; Length 1138;
Best Local Similarity 19.8%; Pred. No. 0.16;
Matches 132; Conservative 85; Mismatches 206; Indels 244; Gaps 39;

QY 48 NKAVA-----AGNYDDAAKALLAYREKSKAREPDSNAEKPADIRQIDKVTREMAKAL 103
Db 121 NKALAELEGLNN-----LTIYQQ--ALEDLNPNPDPATITRVIDRF--RILD-AL 167

QY 104 VHQFQPHKGYGFD-----YKGINWCM-----WPKVDNEV----- 134
Db 168 PESTYPSFRVAGYEIPLLTVYAQAANGLHLLRSTLYGDKWGTQNNIENYRQKH 227

QY 135 -RWQHLRVKMQA-MALVYHATGDE-----KYAREWVYQSDWAR-----KNPLGLSOPND 183
Db 228 SEYSNHCVKYNSGLSRNGSTYEQWYNFRREMILWLDIAVFPYIDPVMYSMETS 287

QY 184 KFWMR-----PLEVSDRVQSLPTPSLFVNSPAFTPAFLMEFLNSYHQOQADYLSHYAEQ 238
Db 288 TQLTREVVTDBISLSISNPDIQPSFSQMENTAFRPHLV-----DYLDELXYT 336

QY 239 GNHRLF--EAQNLF-----AGVSPEFKDSPRWOTGISVLNTEIKQVYADGMQFELSP 292
Db 337 SKYAFSHEIQDFLFWCWHKVSFKKSQSNNLY-TTGI-----YKTSYIISG 384

QY 293 IYHVAADIF-----LKAYGSAKRVNLEKEFPQSYVQTVENMIM 331
Db 385 AYSFRGNDLYRTLAAPSVVVPYTONYGVQVEFYGVKGVHYRGD--NKYDLTYSIDQ 442

QY 332 -----ALISISLPYNT-----PMFGDSWITDKNFRMAQFASWARVFP 369
Db 443 LPPDGEPIHEKYTHRLCHATAISKSTPDYDNATIPF--SW-----THRSAEY--YNIYYP 494

QY 370 AN-----QAIKYPATGKQG--KAPNLSKALSNAAGFYFRSCW--DKNATVWLKASPG 421
Db 495 NKIKIPAVKMYKLDLSTVWVGPGFTGGDLVRG-----SNGYIGDIKATV-----NSPLS 546

QY 422 E-----PHAQPDNGTFELFIKGRNFTPDAGVVFVYSGDEAIMKLRNRYRQTRIHTLTD 475
Db 547 QYRVVRVATVSGLNFVFI----- 567

QY 476 NQNMVITKARQNKWET--GNLIDLVTY-----TNPSYPN-----LDH--QRSVL 515

```

```

Db 568 NDEIALQKNFQSTVETIGEGKO-LYVSGPYEYSTTIOFPNEHPKTLHLNHLNNSPF 626
QY 516 FINKYKFLVIDRAIGEAATGNLGVHWQKEDSNPFVDTKRNRYVTVYRDGNLNM---IQSL 572
Db 627 YVDSIEFIPVD-----VNYDEKEK-----LEKAKAVNTLFTGRNALQKYVTDY 671
QY 573 NADRTSL 579
Db 672 KVDQVSI 678

RESULT 13
US-07-973-320-4
Sequence 4, Application US/07973320
Patent No. 5286486
GENERAL INFORMATION:
APPLICANT: Payne, Jewel M.
APPLICANT: Fu, Jenny M.
TITLE OF INVENTION: No. 5286486el Bacillus thuringiensis Gene
TITLE OF INVENTION: Encoding a Coleopteran-Active Toxin
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESS: David R. Saliwanchik
STREET: 2421 N.W. 41st Street, Suite A-1
CITY: Gainesville
STATE: FL
COUNTRY: USA
ZIP: 32606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/973,320
FILING DATE: 19921106
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/788,638
FILING DATE: 6-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: Saliwanchik, David R.
REGISTRATION NUMBER: 31,794
REFERENCE/DOCKET NUMBER: MA68.C1
TELEPHONE: 904-375-8100
TELEFAX: 904-372-5800
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1138 amino acids
TYPE: AMINO ACID
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
HYPOTHETICAL: YES
ANTI-SENSE: NO
ORIGINAL SOURCE:
ORGANISM: Bacillus thuringiensis
STRAIN: kumamotoensis
INDIVIDUAL ISOLATE: HD867
IMMEDIATE SOURCE:
LIBRARY: Lamdagem (TM)-11 library of J.M. Fu
CLONE: 867
US-07-973-320-4

Query Match 3.4%; Score 119; DB 1; Length 1138;
Best Local Similarity 19.8%; Pred. No. 0.16;
Matches 132; Conservative 85; Mismatches 206; Indels 244; Gaps 39;

QY 48 NKAVA-----AGNYDDAAKALLAYREKSKAREPDSNAEKPADIRQIDKVTREMAKAL 103
Db 121 NKALAELEGLNN-----LTIYQQ--ALEDLNPNPDPATITRVIDRF--RILD-AL 167

```

```

QY 104 VHQFQPHKGYGYFD-----YKDIINWOM-----WPVKNEV-----134
Db 168 FESYMPDSFRVAGYEIPLLTVYAQAANLHALLSDSTLYGDKWGFTQNNIENNRKOKHI 227
QY 135 -RQHLHRVKKWQA-MALVHATGDE-----KYAREWVYQYSDWAR-----KNPLGLSQDND 183
Db 228 SEYSNCHVKWYNSGLSLRSLNGSYEQWYNINFRPREMILMLVDIAAVFPIYDPRMYSMETS 287
QY 184 KFWVR-----PLEVSRVQSLPPTESLFVNSPAFTPAFLMEFLNSHQADYLSHYAEQ 238
Db 288 TQLTREVYDPTLSLSNPDIGFSQMENTAFTPHLV-----DYLDLYIYIT 336
QY 239 GNRHLF--PAQRNLF-----AGVSFPFKDPSRWRQGTGISVLNTEIKKQVYADGMQFELSP 292
Db 337 SKYKAFSHEIQPLDFWCWVHKVSFKSEQSNLY-TTGI-----YKTSGLYISSG 384
QY 293 IYHVAIDIF-----LKYGSAKRVNLEKEFFQSYQVQTVENMIM 331
Db 385 AISFRGNDIYRTLAAPSVVVVYPTQNYGVEQVEFYGVKGHVHYRGD--NKYDLTYDSIDQ 442
QY 332-----ALISISLPDYNT--PMFGDSWITDKNFRMAQFASWARVFP 369
Db 443 LPDGEPIHEKYTHRLCHTAISKSTPDYDNATIPF--SW-----THRSAEY--YNRIYP 494
QY 370 AN-----QAIKYPATDGKQ--KAPNLSKALSAGFYTPRSQW--DKNATVMVLKASPPG 421
Db 495 NKIKKIPAVMYKLDLSVWVGPGFTGGDLVKG--SNGYIGDIKATV-----NSPLS 546
QY 422 E-----FHAQPDNGTFFELFKGRNFTPDAGVFVYSGDEAIMKLRNWRQTRIHSITLTD 475
Db 547 QKRVVRVRYATSVSGLFNFI-----TNPSYN-----LDH--QRSVL 515
QY 476 NONMVITKARQMKWT--GNLIDLTV-----LHNSLN-----LDH--QRSVL 515
Db 568 NDEIALQNFQSTVETIEGKD-LYSGFYIEYSTTQFPNEHPKITLHNLHNSNPSFF 626
QY 516 FINKKYFLVIDRAIGEAATGNLGVHQLKEDSNPFDKTKNRYTYTYTRDGNILM---IQSL 572
Db 627 YVDSIEFIPVD-----VNYDEREK-----LEKAQKAVNTLFTSGRNALQKYVTDY 671
QY 573 NADRTSL 579
Db 672 KVDQVSI 678

RESULT 14
US-08-258-639A-2
; Sequence 2, Application US/08258639A
; Patent No. 5681733
; GENERAL INFORMATION:
; APPLICANT: Su, Hongsheng
; APPLICANT: Blain, Francoise
; APPLICANT: Bennett, Clark
; APPLICANT: Gu, Kangfu
; APPLICANT: Zimmermann, Joseph
; APPLICANT: Musil, Roy
; TITLE OF INVENTION: Nucleic Acid Sequences And Expression
; TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
; TITLE OF INVENTION: Flavobacterium heparinum
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Hale and Dorr
; STREET: 1455 Pennsylvania Avenue, N.W.
; CITY: Washington, D.C.
; COUNTRY: U.S.A.
; ZIP: 20004
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:

```

```

; APPLICATION NUMBER: US/08/258,639A
; FILING DATE: 10 JUNE 1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Healey, William J.
; REGISTRATION NUMBER: 36,160
; REFERENCE/DOCKET NUMBER: 104385.116
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (202)942-8400
; TELEFAX: (202)942-8484
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 772 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-258-639A-2

Query Match 3.4%; Score 118; DB 1; Length 772;
Best Local Similarity 20.5%; Pred. No. 0.11;
Matches 128; Conservative 79; Mismatches 229; Indels 188; Gaps 30;

QY 145 QAMALVYHATGDEKYAREWVYQYSD--WARKNPLG--LSQDNDKFWRPLEYSDRV--QS 198
Db 109 ELMALNYLMTKDPKVGREAITSIITLETATFKPADISRGIGLEFWVTGAIYDWCYDOL 168
QY 199 LPPTSLFVNS-----PAFTPAFLMEFLNSHQADYLSHYAEQGNHRLFEA 246
Db 169 KPEETRFVKAFVRLAKMLECGYPPVKDSIVGHASEWIMVMDLLSVGTAIYDE--PPE 225
QY 247 QRNLFAVSFPFKDPSRW-----RQTGISVLNTEIKKQVYA-----DGM 286
Db 226 MYNLAAGFFKEHLVARNWVFPYSHNYHQGMSYLVNFTNDLFALWILDMGAGNVENPCQ 285
QY 287 QFELSPIYHVAIDIFLKAYGSAKRVNLEKEFFQSYQVQTVENMIMALISISLPDYNTPMF 346
Db 286 QFILYDAIKRRPDGOIILAGD--VDYSRKKPKYIT-----MELLAGSY--YKDEVL 334
QY 347 GDSWITDKNFRMAQFASWARVFPANQAIKYPATDGKQ--KAPNLSKAL---SNAGFYTF 402
Db 335 NYEFLKDPN-----VEPHCKLFEFLWRDTQLGSRKXPDDLPLSRYSGPSFGWMA 383
QY 403 RSGWMDKNATVMVLKASPPGF-----HAQPDNGTFFELFKGRNFTPDAGVFV--YSGDEAIM 457
Db 384 RTGMPESVIAEMKVN---EYSLNHOHQDAGAFQIYKQ--PLAIDAGSYTGSSGYNPS 439
QY 458 KLRNWRQTRIHSITLTL-----DNQNMVITKARQ-----486
Db 440 HNKFFKRTIAHNSLLIYDPKETFSSSGYSGSDHTDFAANDGGORLPCKGWIAPRDLKEM 499
QY 487 --NKWETGNLJ-----DVLTYTNPSYPLN-----DHQRSVLFINK--520
Db 500 LAGDFRTGKILAQGFDPDQNT---PDYTLKGDITAAYSKAKVSKVKSFLNLKDAKVP 556
QY 521 -YFLVIDRAIGEAATGNLGVHQLKEDSNPFDK-----TKRVVITYTRDGN--566
Db 557 AAMLVFQKVA-----SNPDFKFPWLLHSIEQPEIKGNQITIKETKNGDS 601
QY 567 -----LMTQSLNADRTSLNEEBEGKSYVY-----NKLKRPAPVFE--KPKK 606
Db 602 GMLVNTALLPDAANSNITSIG-GKGKDFWVFGYNTNDPKGTDEALERGERWVEITPKK 660
QY 607 NAGTQPFVSIVPYDG--QKAPFI 628
Db 661 AAADYLVNVIQIADNTQOKLHEV 684

```

```

RESULT 15
US-08-900-951-2
; Sequence 2, Application US/08900951
; Patent No. 5919693
; GENERAL INFORMATION:
; APPLICANT: Su, Hongsheng

```


APPLICANT: Blain, Francoise
APPLICANT: Bennett, Clark
APPLICANT: Gu, Kangfu
APPLICANT: Zimmermann, Joseph
APPLICANT: Musil, Roy
TITLE OF INVENTION: Nucleic Acid Sequences And Expression
TITLE OF INVENTION: Systems For Heparinase II And Heparinase III Derived From
TITLE OF INVENTION: Flavobacterium heparinum
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hale and Dorr
STREET: 1455 Pennsylvania Avenue, N.W.
CITY: Washington, D.C.
COUNTRY: U.S.A.
ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC DOS/MS DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/900,951
FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/258,639
FILING DATE: 10 JUNE 1994
ATTORNEY/AGENT INFORMATION:
NAME: Healey, William J.
REGISTRATION NUMBER: 36,160
REFERENCE/DOCKET NUMBER: 104385.116
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)942 8400
TELEFAX: (202)942 8484
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 772 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-900-951-2

Query Match 3.4%; Score 118; DB 2; Length 772;
Best Local Similarity 20.5%; Pred. No. 0.11;
Matches 128; Conservative 79; Mismatches 229; Indels 188; Gaps 30;

Qy	145	QAMALVYHATGDEKAREWVYQYSD---	WARKNPLG-LSQNDKFPVWRPLEVSDRV--	QS	198	
Db	109	ELMALNYLMTKDPKVGREAITSIIDT	LETATFKPAGDISRGIGLPMVTGAIVD	WCYDQL	168	
Qy	199	LPPTFSLFVNS-----	PAFTAFMEFLNSHQADYLSHYAQGNHRL	FEA	246	
Db	169	KPEEKTRFVKAFVRLAKMLECGYPPV	KDKSIVGHASEWMMIRDLISVGIAIYD	---	225	
Qy	247	QRNLFAGVSFEFKDSPW-----	RQTGISVLNTEIKKQVYA-----	DGM	286	
Db	226	MYNLAAGRFFKEHLVARNWFESHNYH	QMSYLNVRFTNDFALMILDRMGAGNV	FNFGQ	285	
Qy	287	QFELSPIYHVAADIFLKAYGSAKRVN	LEKFPQSYQVQTVENMIMALISILPDY	NTPMF	346	
Db	286	QFILDYAIYKRRPDQIILAGD---	VDYSRKPKYTT-----	MPALLAGSY--	YKDEVL	334
Qy	347	GDSWITDKNFRMAQFASWARVFPANQ	AIKYFATDGKQG- KAPNFLSKAL---	SNAGFYTF	402	
Db	335	NYEFLKDN-----	VEPHCKLFEFLWRDTQLGSRKDDDLPL	SLRYSGPSFGWMIA	383	
Qy	403	RSCWDXNATVMVLKASPPGEP----	HAQPDNCTFELFKGRNFTPDAGVUV-	YSGDEAIM	457	
Db	384	RTGWGPESVIABMKYN---	EYSFLNHQHDAGAFQIYYKG- PLAI	DAGSYTSGSGYNSP	439	
Qy	458	KLRNWYRQTRIHSITLTL-----	DNQNMVITKARQ-----		486	
Db	440	HNKNFFKRTIAHNSLLIYDPKETPSS	SGYSGSDHTDFAANDGGQRLPGKWI	APRDLKEM	499	

Qy	487	--NKWETGNML-----	DVLTYNPSYPNI-----	DHQRSVLFINKK-----	520
Db	500	LAGDFRTGKILAQGFQPDNQT---	PDYTYLKGDITAAYSAKVKEVKRSF	LFLNLKDAKVP	556
Qy	521	-YFLVIDRAIGEAIGNLGVHWQLKED	SDNPVFDK-----	TKNRVYTYTVDGNN--	566
Db	557	AMIVFDKVA-----	SNPDFKKFWLLHSIEQPEIKGNQIT	IKETKNGDS	601
Qy	567	-----	LMIQSLNADRTSLNEBEGKVSYYV-	NKELKRPFAFVE-KPKK	606
Db	602	GMLVNTALLPDAANSNITSIG-GKG	KDFWVGFTNYTNDPKPGTDEALER	GEWRVEITPKK	660
Qy	607	NAGTQNFVSIVPYDG--	OKAPEI	628	
Db	661	AAAEYVNLVVIQIADNTQQKLHEV	684		

Search completed: March 10, 2004, 15:00:55
Job time : 24 secs

This Page Blank (uspto)

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: March 10, 2004, 14:59:30 ; Search time 39 Seconds
(without alignments)
3567.949 Million cell updates/sec

Title: US-09-802-285A-2

Perfect score: 3494

Sequence: 1 MTKIKFRIIVFAVIALSSG.....KGLNLTLTKGQQLVLP 659

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 809742 seqs, 211153259 residues

Total number of hits satisfying chosen parameters: 809742

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:*

- 1: /cgn2_6/ptodata/2/pubaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/2/pubaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/2/pubaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/2/pubaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/2/pubaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/2/pubaa/PCTUS_PUBCOMB.pep.*
- 7: /cgn2_6/ptodata/2/pubaa/US08_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/2/pubaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/2/pubaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/2/pubaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/2/pubaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/2/pubaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/2/pubaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/2/pubaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/2/pubaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/2/pubaa/US10_NEW_PUB.pep.*
- 17: /cgn2_6/ptodata/2/pubaa/US60_NEW_PUB.pep.*
- 18: /cgn2_6/ptodata/2/pubaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	ID	Description
1	128	3.7	25	US-09-802-285-3
2	128	3.7	25	US-10-291-337-3
3	123	3.5	532	US-10-369-493-22074
4	120	3.4	677	US-10-369-493-23212
5	118.5	3.4	579	US-10-369-493-23215
6	118.5	3.4	579	US-10-369-493-2321
7	117	3.3	1163	US-10-452-024-107
8	117	3.3	1250	US-09-769-736-10
9	116	3.3	4563	US-09-802-640-22
10	115.5	3.3	1314	US-10-369-493-1532
11	115.5	3.3	1331	US-09-801-368-370
12	114.5	3.3	645	US-10-130-973A-8
13	114.5	3.3	1279	US-09-882-227-388
14	114	3.3	871	US-10-369-493-13471
15	114	3.3	899	US-10-369-493-5864

16	113.5	3.2	1398	13	US-10-090-624-6	Sequence 6, Appli
17	113	3.2	2179	14	US-10-224-999A-3481	Sequence 3481, Ap
18	111.5	3.2	846	15	US-10-320-797-3302	Sequence 3302, Ap
19	111	3.2	723	15	US-10-369-493-10942	Sequence 10942, A
20	110.5	3.2	563	9	US-09-815-242-5665	Sequence 5665, Ap
21	110.5	3.2	578	9	US-09-815-242-12206	Sequence 12206, A
22	110	3.1	4563	9	US-09-870-759-128	Sequence 128, App
23	110	3.1	4563	10	US-09-751-708A-128	Sequence 128, App
24	109.5	3.1	966	15	US-10-099-322-72	Sequence 72, Appl
25	109.5	3.1	966	15	US-10-044-564-72	Sequence 72, Appl
26	107.5	3.1	1336	10	US-09-934-455-22	Sequence 22, Appl
27	107.5	3.1	1336	14	US-10-278-173-128	Sequence 128, App
28	107.5	3.1	1336	15	US-10-225-067-92	Sequence 92, Appl
29	107.5	3.1	1336	15	US-10-374-780A-204	Sequence 204, Appl
30	107	3.1	660	14	US-10-130-973A-12	Sequence 12, Appl
31	106.5	3.0	561	15	US-10-369-493-23071	Sequence 23071, A
32	106.5	3.0	662	14	US-10-032-585-7128	Sequence 7128, Ap
33	106.5	3.0	862	14	US-10-130-973A-4	Sequence 4, Appli
34	106.5	3.0	887	14	US-10-130-973A-6	Sequence 6, Appli
35	106	3.0	584	15	US-10-369-493-18476	Sequence 18476, A
36	106	3.0	945	15	US-10-289-762-1030	Sequence 1030, Ap
37	106	3.0	1375	9	US-09-740-274-4	Sequence 4, Appli
38	105.5	3.0	1167	9	US-09-815-242-11522	Sequence 11522, A
39	105.5	3.0	1291	15	US-10-369-493-20301	Sequence 20301, A
40	105	3.0	473	15	US-10-369-493-19753	Sequence 19753, A
41	105	3.0	473	15	US-10-369-493-23309	Sequence 2, Appli
42	105	3.0	965	10	US-09-842-484A-2	Sequence 3, Appli
43	105	3.0	965	14	US-10-184-485-3	Sequence 42, Appl
44	105	3.0	1135	10	US-09-759-130B-42	Sequence 5511, Ap
45	105	3.0	1143	15	US-10-369-493-6511	

ALIGNMENTS

RESULT 1
US-09-802-285-3
; Sequence 3, Application US/09802285
; Patent NO. US20020122793A1
; GENERAL INFORMATION:
; APPLICANT: Liu, Dongfang
; APPLICANT: Pojasek, Kevin
; APPLICANT: Shriver, Zachary
; APPLICANT: Holley, Kristine
; APPLICANT: El-Shabrawi, Yosuf
; APPLICANT: Venkataraman, Ganesh
; APPLICANT: Sasisekharan, Ram
; TITLE OF INVENTION: Heparinase III and Uses Thereof
; FILE REFERENCE: M0656/7063HCL
; CURRENT APPLICATION NUMBER: US/09/802,285
; CURRENT FILING DATE: 2001-03-08
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Flavobacterium heparinum
US-09-802-285-3

Query Match 3.7%; Score 128; DB 9; Length 25;
Best Local Similarity 100.0%; Pred. No. 7.9e-05;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 280 QVYADGMQFELSPYHVAADIFLK 304
|||||
Db 1 QVYADGMQFELSPYHVAADIFLK 25

RESULT 2
US-10-291-337-3
; Sequence 3, Application US/10291337
; Publication No. US20030095628A1
; GENERAL INFORMATION:

APPLICANT: Liu, Dongfang
APPLICANT: Pojasek, Kevin
APPLICANT: Shriver, Zachary
APPLICANT: Holley, Kristine
APPLICANT: El-Shabrawi, Yosuf
APPLICANT: Venkataraman, Ganesh
APPLICANT: Sasisekharan, Ram
TITLE OF INVENTION: Heparinase III and Uses Thereof
FILE REFERENCE: M0656/7063HCL
CURRENT APPLICATION NUMBER: US/10/291,337
CURRENT FILING DATE: 2002-11-08
NUMBER OF SEQ ID NOS: 3
SOFTWARE: PatentIn version 3.0
SEQ ID NO 3
LENGTH: 25
TYPE: PRT
ORGANISM: Flavobacterium heparinum
US-10-291-337-3

Query Match 3.7%; Score 128; DB 14; Length 25;
Best Local Similarity 100.0%; Pred. No. 7.9e-05;
Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 280 QVADGMQFELSPIYHVAIDIFLK 304
Db 1 QVADGMQFELSPIYHVAIDIFLK 25

RESULT 3

US-10-369-493-22074
; Sequence 22074, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 22074
; LENGTH: 532
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-10-369-493-22074

Query Match 3.5%; Score 123; DB 15; Length 532;
Best Local Similarity 18.9%; Pred. No. 0.027;
Matches 109; Conservative 76; Mismatches 179; Indels 214; Gaps 31;

QY 94 VTREMAKALVHOFOPHKG---GYEDYKGINQWQW-PVKDNEVRWQLHRVKKWQAM 147
Db 21 MTNETSDRLVH-FTPKGWMNDPGLWYDEKDAKHLFPQXNPNDTW--GTFPLWG-- 75
QY 148 ALVYHATGDEKVAEWMVQYSDWARKNPLGLSQDNDKFWVRPLEVSDRVQSLPPTFLSV 207
Db 76 ----HATSD-----LTNW-EDQPIAIAPKN----- 97
QY 208 NSPAPTAELMEF-----LNSVHQADYLSTHYAQGNHRLFE 245
Db 98 DSGAFSGMVVYNNNTSGFNPDIDPRQCVAIWYNTPESEQVTS--YSLDGGYTFTE 155
QY 246 AQNLFPAGVSFPFKD-----SPRWQTGLSVLNTETKKQVYAD----- 284
Db 156 YQKNPVLANSQFRPKVFWPEPSQKWTMT--AAKSQDYKIEIYSSDDLKSWKLESAPA 213
QY 285 -----GMQFEL-----SPIYHVAIDI-----FLKAY 306

Db 214 NEFLQYCECEGLIEVPTQDPSKSYWMFISINPGAGGSGFNOYFVGSFNGTTFEAF 273
QY 307 GSAKRVNLEKBFPSQY--VQTVENMIMALISLDPDYNTPMFGDSWITDKNFEMAQFA-- 362
Db 274 DNQSRV---VDFGKYVALQTFN-----TDPTYGSAL-GIAWAS--NWEYSAFVPT 319
QY 363 -----SWARVPPANQAIKYFA---TDGQKQKAPNFLSKALSNAGFYTFRSGWKNV 412
Db 320 NPMRSSMSLVKFSLN--TEYQANPETELINLKAEPILN--ISNAG-----PWSRFATN 369
QY 413 MVLKASPPCEPFAQPDNGTFELFKGRNFTPDAGVFVYSGDRAIMK-----LRNWRQTR 467
Db 370 TLTITKANSYNVDLSNSTGLEFEL-----VYAVNTQTISKSVFADLSLWFKGLE 419
QY 468 -----IHSTLTLDNQNMVITKARONKWETG-----NNLDVLITYNFSYPN-- 507
Db 420 DPEEVLRMGFVSASSFFLDRCGNSKVFKVENFYFTNRMSVNNQPPKSENDLSYKVG 479
QY 508 LQHQRSVLFIN-----KKYELVIDRAICEATGNLGV 538
Db 480 LDONILELYFDGVDVSTNTYPTMTTGNALGSVNMITGV 517

RESULT 4

US-10-369-493-23212
; Sequence 23212, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 23212
; LENGTH: 677
; TYPE: PRT
; ORGANISM: Bacillus subtilis
US-10-369-493-23212

Query Match 3.4%; Score 120; DB 15; Length 677;
Best Local Similarity 18.8%; Pred. No. 0.073;
Matches 123; Conservative 83; Mismatches 216; Indels 232; Gaps 32;

QY 41 YSGLEKVNKVAAGNYDDAALKALAY---REKSKAREPDPFSAEKPADIROPIDKVTRE 97
Db 105 FSGSAVVDKNTSGFTGKEPLVAITYTDREGHQVQSIAYSNDK-----GRTWTK 155
QY 98 MADKALVHOFQPHKGYGFDYCKDINWQWPKDNEVRWQLHRVKKWQAMA-----LVTH 152
Db 156 YAGNFPV-----ENPG-----KKDF-----RDPKVFMYEKEKKWVWVLAAGDRILIY- 197
QY 153 ATGDEKYAREWVYQYSDWARKNPLGLSQDNDKFWVRPLEVSDRVQSLPPTFLSVNSPAP 212
Db 198 ----TSKNLQWITY-----ASEFGDQSGHGVW-----ECPLDFELPVDGNFN 237
QY 213 TPAFLMEF-----LNSVHQADYLSTHYAQGN--NHRLP--EAQNLFPAGVSFPF 259
Db 238 QKKWVQVSVGNGAVSGGSGMGYFVGDFDGTGFKNENPENKVLWTDYGRDFAAASWSDI 297
QY 260 --KDSPR-----WQGTGLSVLNTETKKQVYADGMQFELSPIYHVA 298
Db 298 PSTDSRRLLWGMNSWQVANDVPTSPWRSR--TSIPRELKKAFTGFRVWQTPVKELET 355
QY 299 I-----DIFLKAYGSAKRVNLE-KEFPQS-----YVQTVENMIM-- 331

```

Db      356  IRGTSKKWNLTISPASHNVLAQSGDAVEIIINAEFKVSPGSAAEFGFKVRTGENQFTKVG 415
Qy      332  -----ALISILPDYNTPMFGDSWITDKN---FRMAQFASWAKVFFPANQAIKYFATDQKQ 383
Db      416  YDRRNAKLFVDRSESGNDTFNPAFTGKETAPLKPVNGVKLRI FVDRSSVEFVFGNDGKQ 475
Qy      384  GKA---PNFLSKAL---SNAG-----FYTFESGWDKKNATYMWLK 416
Db      476  VITDIILPDRSSKGLHYAANGVKVKSUTIIHLKKVWGTFPPMSNMTGW---TTV----- 528
Qy      417  ASPGGEFHAQPDNGTFELFIKGRNETPDDAGVFVYS-----GDEA 455
Db      529  -----NGTWADTIEGQGRSDGDSFILSSASGSDFTYESDITTIKDGNGRGAGA 576
Qy      456  IMKLENWYRQTRIHTLTLDNQMNVITKARQNKWETGNLDLVITYNPSYPNLDHQRSVL 515
Db      577  LM-----FRSDKDAKNGLYANDAKHDLVKFFKFENGAAASVIAEYKTP-----I 620
Qy      516  FINKKYFL-----VIDRAIGE-----TGNLGVH-WQLKEDSNPVF 550
Db      621  DVNKKYHLKTAEGDRFKIYLLDRLLVIDAHDVSFSEGOFGNLVW-----DATAVF 670

RESULT 5
US-10-369-493-2315
; Sequence 2315, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 2315
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Schizosaccharomyces pombe
US-10-369-493-2315

```

```

Db      315 WELSDLKSLKWKQSGALLSGGGWNASFTENHHQTRTVSYLSDSPKYRAYSSKLMALFII 374
Qy      435 FIKGRNFTPDAGVFYISGDEAIMKLNNYRQTRIHSHTLTLDNQNNVITKARQNKWETGNN 494
Db      375 PQSG---TP-----FVFQGE--LALANIPRDWPIDYELDVETQNF-----WK----- 412
Qy      495 LDVITYTNPSPNLDHQRSVLFINKKYFLVIDRATGEATGNLGVHWQLKEDSNPVFDKTK 554
Db      413 --LFMSGNFSQBEI--EXTMDIVNKR-----ARDNGRTPMHW----DSGPNGGFTK 455
Qy      555 -----NRVYTYTRDGNLMTQSLNADRTSLNEEGKVSY-----VYNKELK 595
Db      456 AGVPEWKRVTNDYKEWN-----AANQVNDPSPYTFWSKALELRKELK 498

RESULT 6
US-10-369-493-2321
; Sequence 2321, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; FILE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; TITLE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 2321
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Schizosaccharomyces pombe
US-10-369-493-2321

```

Db 413 --LPMGPFQSEI--EKTMDIVNR-----ARDGRTPMEW-----DSPNGGFTK 455
QY 555 -----NRVYTYRGGNNLMIOSLNADRTSLNEEBGKVS-----VYNKELX 595
Db 456 AGVKPMRVNDYKEWN-----AAQVNDPESPYPYFWSKALELRKELK 498

RESULT 7

US-10-452-024-107
; Sequence 107, Application US/10452024
; Publication No. US20040013687A1
; GENERAL INFORMATION:
; APPLICANT: Simpson, Lance
; APPLICANT: Park, Jung-Beak
; APPLICANT: Maksymowich, Andrew
; TITLE OF INVENTION: Compositions and Methods For Transsepithelial Molecular Transport
; FILE REFERENCE: 9855-96U1
; CURRENT APPLICATION NUMBER: US/10/452,024
; PRIOR FILING DATE: 2003-06-02
; PRIOR APPLICATION NUMBER: 60/384,949
; PRIOR FILING DATE: 2002-05-31
; NUMBER OF SEQ ID NOS: 188
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 107
; LENGTH: 1163
; TYPE: PRT
; ORGANISM: Clostridium botulinum
US-10-452-024-107

Query Match 3.3%; Score 117; DB 15; Length 1163;
Best Local Similarity 17.1%; Pred. No. 0.32;
Matches 141; Conservative 129; Mismatches 280; Indels 274; Gaps 38;

QY 17 LSSGNLAQSSSITRKDF-----DHINLEYSGLKVKVKAAGNYDDAAKALIA 65
Db 380 LMKSNVYDGLKGTWNNFYAVYKIPYNIIGDEYHINYSLNNVN-VEEINNIPPINDIY 438
QY 66 YREKSKAREPDFS-----NAEKPADIROPIDKVT-----EMADKALV 104
Db 439 PYKNSDPEIPYINITEKINNTTLPISVYLOAQVNTSNDINLSDFSKVITSLKDRSLV 498
QY 105 HQFQPHKGYGYP-----YKGDIN-----WQWPVKDNEVRWQLHRVKNW 144
Db 499 YSELDNT-IDYLSIKYDEPINTDKKYLWLKEIFRNYSDFTQTEIQEVNIPGINKVYVP 557
QY 145 QAMALVIYATGDEKAREWYQYSDWAKNPLGLSQDNDKFVRPLEVSDRVQSL----- 199
Db 558 LQKALNLTGNS-----FIEFKTLGPISLINKKENIIMPKEIDEIPNSMLNLSF 609
QY 200 -----PPTPSLVNSPAFTPAFLMEFLNSVHOQADYLSHY-----AEQ----- 238
Db 610 KOLSENLFNIFSKNNSYFEKIYDFLDQWTO--YYSQYFDLICMAKRSVLAEQSLIKKI 667
QY 239 -----GNHRLFE-----AQNR-----LFAVGS 255
Db 668 IQKLSYLGNSIGADNLVLMNLTTNLTDRDISNESQIAMNVDSFLNSAALCVPEGNI 727
QY 256 PEF-----KDSPRWQGISVLNTE-----IKQVYADGMQFELSPIYVHVAI 299
Db 728 YPKFISFMEQCNINNKNTREFIQKTNITENEKLIQNNRIFS-SLDFDFLINIEN----- 782
QY 300 DIFLKAYGSAKVNLEKEFPQSYQVTVENMIMALISISLPDVTMPFGDSMTIDKNFRMA 359
Db 783 ---LAKSLFSEETALLIKEETSYE-----LVLYAFQEPDNN--IGDA--SAKNTSIE 828
QY 360 QFASWARYF-----PANQAIKYFATGCKQKAPNFKALSNAAGFYTFRSGWDKN 409
Db 829 YSKDIDLVIYINGDALYLANGAQSISF-----SNDFFENGLTNSFSIYF---WLRN 876
QY 410 ATVMVLKASPPGFEHFAQPDNGTFELFKRNFPTDAGVYF-----YSGDEATMLKNRWTRQ 465
Db 877 LGKOTIKSKLIG---SKEDNCGWEIYFQ-----DTGLVFNMDISNGNEKIYLSDSVNN 927

QY 466 TRIHSTLTLD-----NONMVTIKARQ--KWETGNNLDVLTYPNPSPLNDHQRS 513
Db 928 SWHYTITISDRLKEQLLIPIDNNLVVNESIKELIYSSNIISLISNNASY-----IEG 982
QY 514 VLFINK-----KYFLVID-----RAIGEATGNLGVHQLKE--DSNPYFD-KTKNR 556
Db 983 LTLINKPTTSQEVLSNYFKNLNNSVIRDSNEERLEYNKYQLYNYVFSNPYIEIKQNNN 1042
QY 557 VYTYRDGNNLMIOSLNADRTSLNEEBGKVSYYVYNKELRPAPVPEKPKKNAGTQNFVSI 616
Db 1043 IYLTINNTNNLQASKFKLLSINPKQHV-----QKFEDEV 1078
QY 617 VYPYDQKRAPEISIREN--KGNDF-EKGKLNLTLTINGKQQLVL 657
Db 1079 I-----ISILDNMEKYIDISEDNRLOLDINKNGAKKMMI 1112

RESULT 8

US-09-769-736-10
; Sequence 10, Application US/09769736
; Publication No. US20030138775A1
; GENERAL INFORMATION:
; APPLICANT: Microbial Technics Limited
; APPLICANT: Le Page, Richard WF
; APPLICANT: Wells, Jeremy M
; APPLICANT: Hanniffy, Sean B
; TITLE OF INVENTION: Proteins
; FILE REFERENCE: PWC/P21089wo
; CURRENT APPLICATION NUMBER: US/09/769,736
; CURRENT FILING DATE: 2003-02-14
; PRIOR APPLICATION NUMBER: GB 9816335.5
; PRIOR FILING DATE: 1998-07-27
; PRIOR APPLICATION NUMBER: US 60/125163
; PRIOR FILING DATE: 1999-03-19
; NUMBER OF SEQ ID NOS: 212
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 1250
; TYPE: PRT
; ORGANISM: Streptococcus agalactiae
US-09-769-736-10

Query Match 3.3%; Score 117; DB 10; Length 1250;
Best Local Similarity 20.0%; Pred. No. 0.36;
Matches 145; Conservative 90; Mismatches 264; Indels 226; Gaps 35;

QY 24 AQSSSITRKDFD-----HINLEYSGLKVKVKAAGNYDDAAKALLAYYREKSKAREPDFS 79
Db 435 SKSLLIIGDFNPKQGHFNISNG---NNVTTRQSW-EFKDQLYAYSNGLGAVLNQDGS 489
QY 80 NAEKPADIROP-IDKVTREMAK-----ALVHOFQPHKG-----GYF 116
Db 490 KVE--ASLWSPSADSVTMIYDKONQNRWATTPLVKNNKGWQOTILDTKLGIKNYGY 547
QY 117 -----DYCKDINQWQWPVKDNEVRQHLRV---KWOQAM----- 147
Db 548 VLYEIKRQKDKVKILDPYAKSLAEWDSNTVNDIDITAKAAAFVNPSPQLGPKNLSFAKIANF 607
QY 148 -----ALVYHATGDEKAREWYQYS-DWARKNPLG-LSQDNKFPVWRPLEVSDRVQSLP 200
Db 608 KGKQDAVIY-----EAHVRDFTSDQSLGKLNQGTFAAFSEKLDYLOKLGVTHTQLLP 662
QY 201 PTFSLFVN-----SPAFTP-----AFLMEFLN 222
Db 663 VLSFYVNMKRSRTAYTSSDNNYNWGYDPQSFALSGMYSEKPKDPSPARIAELKQLIH 722
QY 223 SYHOQA-----DYLSTHYAEOGNHELPE-AORNLPAGVSFFBPKDPSRWRQTG----- 269
Db 723 DIHRKGMVILDVVYNNHTAKT---YLFEDIENY---HFMNEDGSPRESFGGGLGTH 776
QY 270 -----TSVLNTEIKQVYADGMQFELSPIYHVAIDIFLKAYGSAKVNLEKEFP 319

Db 777 AMSRRVLVDISKILTSEFK-----VDGRFDMGDHDAIAEL-----AYKEAKAIN----- 823
QY 320 QSYVQTVENMIMALISISLPDYNTPMFGDSWIITDKNFRMAQFASWARVFPANQ----- 372
Db 824 -----PNWI-----MIGCW-----RIFQGGQKPVKPADQDMWKSTD 856
QY 373 AIKYFATDQKQKAPNPLSKALSNAGFYTPFRSGWKNATVMV--LKASP-----PG-- 421
Db 857 TVGVFSDDIR-----NSLKSGFNEGTPAFITGQPSLOQIFKNIKAQPCGNFEADSPGDV 911
QY 422 -EHAQPDNGTF-ELFTKGRNFTPDAGVFVYSDEALMKLRNMYRQTRIHSITLTLNQNMM 479
Db 912 VQVIAHDNLTLDVIAKSLNKDPKV-----AEEDI-----HRLRLGNVWLISQGT 959
QY 480 VIITKARQNKWETGNLNLVLYTTPNSPVLNLDHORSVLFINKKYFLVLDRAIGEATGNLGVH 539
Db 960 AFTHSGQYGRTRKLLNPDMYTKVSDDKLPNKATLIEAVKEYPYFTHDSYDSSDAINHFD 1019
QY 540 WOLKEDSNPVFDKTKRKYVITYYRDGNLMTQSLNA-----DRTSLNBEEGKVSYYVYNKELK 595
Db 1020 WAAATDNNKHPISTKTQAYTA---GLITLRRSTDAPFKLSKABIDREVSILITEVGGQDIK 1076
QY 596 RPAFV 600
Db 1077 EKDLV 1081

RESULT 9
US-09-802-640-32
; Sequence 32, Application US/09802640
; Publication No. US20030036057A1
; GENERAL INFORMATION:
; APPLICANT: Braun, Andreas
; APPLICANT: Bonsal Aruna
; APPLICANT: Kieyn Patrick
; TITLE OF INVENTION: GENES AND POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: CARDIOVASCULAR DISEASE AND THEIR USE
; FILE REFERENCE: 24736-2048
; CURRENT APPLICATION NUMBER: US/09/802,640
; CURRENT FILING DATE: 2001-03-09
; NUMBER OF SEQ ID NOS: 122
; SOFTWARE: Fast-Seq for Windows Version 4.0
; SEQ ID NO 32
; LENGTH: 4563
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-802-640-32

Query Match 3.3%; Score 116; DB 10; Length 4563;
Best Local Similarity 16.3%; Pred. No. 3.3;
Matches 104; Conservative 94; Mismatches 197; Indels 244; Gaps 26;
QY 218 MEFLNSY-----HQOADY-----LSTHYAQGNHRLPEA-----ORNL----- 250
Db 3068 IDFLNNVALFLSPAQAQASQVARSARFNQYKNQNFSAENNEMEAHVINGEANDLFLN 3127
QY 251 -----FAGVSPEPKDSRWRQTC----- 269
Db 3128 IPLTIPEMRLPYTIITPPLKDFSLWEKTLGKLEPKTKTKQSFLDSVKAQYKKNKRRHSIT 3187
QY 270 --TSVLNTEIKQVYADGMQFELSPIYHVAIDFLKAYSAGK-----RVNLEK---EFPQ 320
Db 3188 NPULAVLCEFSQSISKSFDRHFERN---RNNALDFVTKSYNETKIKFKDYKAESKSHDLPR 3244
QY 321 SYVQTVENMIMALISISLPDYNTPMFGDSWITDKNFRMAQF-----ASWARVFPANQAIKY 376
Db 3245 TF-----QIPGYTVFV-----NVEVSPTIEMSAFGVFPKAVMSPS 3282
QY 377 FATDQKQKAPNF-----LSKALSNAGF-YT 401
Db 3283 FSLIGSDVRVPSYLLILPSLELPHVPRNLKLSLPHFKELCTISHIFIPAMGNITDYFS 3342
QY 402 FRSGWKNATVMVLKASPPGGEFFHAQPDNGTGFELFKGRNFTPDAGVFVYSDEAL----- 456

Db 3343 FKSS-----VITLNTNAELFNQSD--IVAHLSSSSSVIDALQVKGLEGTRLTRKRG 3392
QY 457 -----MKLRNMYRQRIHSITLTLDNQNMYITKARQNKWE-----TGNLNDVL 498
Db 3393 LKATALSLSNKEVEGSHNSTVSLTTKNMEVSVAKTAKAEIPILRMNFKDELNGNTKSKP 3452
QY 499 TYTNPSPNLDHORSVLFINKK-----YFLVIDRAIGATGNL----- 536
Db 3453 TVSSSEMFKYDFNSSLMYSTAKGAVDHKLSELSLTSYFSESTKGDVKGVSLSREYSGT 3512
QY 537 -----GVH-----WOLKEDSNPVFDKTKRKYVITYYRDG--NNLM 568
Db 3513 IASEANTYLNKSTRSVKLGQTSKIDDIWNLVKNFAGEATLQRIYSLWEHSTKNHLQ 3572
QY 569 IQSL---NADRTS---LNBEEGKVSYYVYNKELKRPAPVFEKP-----KKNACTON--- 612
Db 3573 LEGLFFTNGEHTSKATLELSPQMOSALVQVHASQPSSEHDFDLGQOEVALNANTKNQKIR 3632
QY 613 FVSIIVPYDQGAPEISIRENKGNDFEKGKLNLTILING 651
Db 3633 WKNEVRIHSGSFOSQVEL-----SNDQEKALHDIAGSLEG 3667

RESULT 10
US-10-369-493-1532
; Sequence 1532, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; PRIOR FILING DATE: 2003-02-28
; PRIOR FILING DATE: 2003-02-28
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 1532
; LENGTH: 1314
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-10-369-493-1532

Query Match 3.3%; Score 115.5; DB 15; Length 1314;
Best Local Similarity 18.3%; Pred. No. 0.53;
Matches 157; Conservative 108; Mismatches 287; Indels 297; Gaps 45;
QY 1 MTTKIPKRIIVFAVIALSSGNILAQS-----SSITRKDFHINLSEYSGLEKVNKAV 51
Db 25 ISSKLVKLSHSHKLSRSDLKALGGSETISDPSQLTFKD-RYVENESLYLKKLAKTA 83
QY 52 AAGNYDDAKALLAYREKSKAREPDPFSNAEKPADIRQPIDKYVTREMAKALVHQFOPHK 111
Db 84 LDDYTRGIKLTNRYBEDDGDDEIRLSNG-----DRIDEI-----HS 122
QY 112 GYGYFD---YGKIDINQMGMFVKDNEVRWQ---LHRVKWQAMALVYH---ATGDEKYARE 162
Db 123 GVKEFSTTPYCRKWR-----SDSEDLAWNIEATERFKWQSMRLARVLKGDIVKGEKTRIAN 177
QY 163 WYQYSDWAKNPLGLSQDNDKFWWRPLE-----VSDRVQSL-----PPTFSILFVNSPA 211
Db 178 QV-----KKP-GLNKELSDLEWLKAWLNGRTWQEMEQSILTYLRDSDSVFBEIMK 228
QY 212 F-----TPAPLMEFLNSYHQOQADY---LSTHYAQ--GNHRLFEAQ----- 247
Db 229 FOIQPOGKILSLDALEAILQOLMNRHYHSVSWPNLKNQYKDKPTTNTAEFTARIDVNMNSW 288
QY 248 -----RNLFAGVSF-----PFEKDSRWRQTCISVLNTEIKQVYADG 285

Db 289 LNFKNLTLLRQELDDWINRSPSSDNCQDFDGVQW-NCKMKILAEQLMKEKNIES 347
Qy 286 MQFELSPIYHVAADIFLKAYGSAKRVNLEK-----EFP-----Q 320
Db 348 I-FQKKIFPLSPWFMFKLHPFIVYRETLTKMNIKYPYVERLSLLAFVYLKKEVILTEL 406
Qy 321 SYVQTVENMIALISISLPDYN-----PMEGDSWITDK 354
Db 407 SYARKLNPTMMIDQMDIDDFNAFIRLSVOLKYLTKYCSNLPFDVDFPTFENTVI--- 463
Qy 355 NFRMAQFASWARVFPANQAIKY-----FATDGKQG-KAPNELSK---ALSNAQFYTF 402
Db 464 -----BAIRYLFFLLNLKLIIDSKQNFKAPELLKQNFPTFA-----NASEA--- 505
Qy 403 RSGWKNATVMVLKASPEGPHQPDNGTFEL---FIKGRNFTPDAGVYVSGDEAIMKL 459
Db 506 -----NGAETVI-----PNEFLKTLRLVHLKQFVLLKQNFPTFA-----NASEA--- 547
Qy 460 RNWYQTRIHSSTLTDNONMVTIKARQNKWETGNNLDVLTYNPSYPNLDHQRSLFINK 519
Db 548 EKW-----LSSIFENLGAMKRLNRF-----SNILVKAFQNSAVYQINHAQV---K 592
Qy 520 K-----YFLVIDRAIGATNGLGVHW-----QLKEDSNPVDKTKNR-----VYTYRDG 564
Db 593 KLDKAHYFLVYS---GNTFESSGVYMFAPPELLGCDNDTILRLNKSIGCDLVKPLDIG 649
Qy 565 NNLMQSLNADRTSLN-----ELEGKYSY---VYNKELKRPAPFVEKPKKNAGTQNF-- 613
Db 650 NNLNVYDITTKETDLNIIIVSKGEDSGKIPYRVVANSSSDLDRHAHQSKKNFSDPDQ 709
Qy 614 -----VSIYVP-----YDQKAPKPEISIRENK---GNDPEKGL- 643
Db 710 HLDEKKNNEVFEVALSGLVLYPGEVYVWDG---PVYKLPGNLFGASNEMDLGKIG 766
Qy 644 --NLTLTIN 650
Db 767 NPNTLILIN 775

RESULT 11

US-09-801-368-370
; Sequence 370, Application US/09801368
; Patent No. US20020128250A1
; GENERAL INFORMATION:
; APPLICANT: Busby, Robert
; APPLICANT: Cali, Brian
; APPLICANT: Hecht, Peter
; APPLICANT: Holtzman, Doug
; APPLICANT: Madden, Kevin
; APPLICANT: Maxon, Mary
; APPLICANT: Milne, Todd
; APPLICANT: No. US20020128250A1man, Thea
; APPLICANT: Royer, John
; APPLICANT: Salama, Sofie
; APPLICANT: Sherman, Amir
; APPLICANT: Silva, Jeff
; APPLICANT: Summers, Eric
; TITLE OF INVENTION: Methods for Improving Secondary Metabolite Production in Fungi
; FILE REFERENCE: 109272.147
; CURRENT APPLICATION NUMBER: US/09/801,368
; CURRENT FILING DATE: 2001-03-07
; PRIOR APPLICATION NUMBER: US 09/487,558
; PRIOR FILING DATE: 2000-01-19
; PRIOR APPLICATION NUMBER: US 60/160,587
; PRIOR FILING DATE: 1999-10-20
; NUMBER OF SEQ ID NOS: 440
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 370
; LENGTH: 1331
; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-09-801-368-370

Query Match 3.3%; Score 115.5; DB 9; Length 1331;
Best Local Similarity 18.5%; Pred. No. 0.54;
Matches 157; Conservative 108; Mismatches 287; Indels 297; Gaps 45;

Qy 1 MTKIFKRIIIVFAVIALSSGNILAQS-----SSITRKDFDHINLEYSLEKVNKAV 51
Db 25 ISSKLVKLSHSHKLSRDLKALGGSETISDGSQLTFFD-RVFNESLYLKKLKT 83
Qy 52 AAGNYDDAALKALLAYVREKSKAREPDFSNAEKPADIROPIDKVTREMAKADALVHQPHK 111
Db 84 LDDYYTRGIGKLTNRVEEDGDDEIIRLSNG-----DRIDEDL-----HS 122
Qy 112 GYGVFD---YKGDINWQMPVKDNEVRWQ---LHRVKWQWQAMALVYH---ATGDEKYARE 162
Db 123 GVKFFSTTTPYCRKMR-----SDSDELAWEIATERFKWOSMLARVLKGDIVKGETRIAN 177
Qy 163 WYQYSDWARKNPLGSLQDNDKFWVRPLE-----VSDRVQSL-----PPTFSLFVNSPA 211
Db 178 QV-----KKP-GLNKELSDIEIWLKAWLNGRTMQEMEQSLTYLRDSSDSVFEIIMK 228
Qy 212 F-----TPAFMEFLNSVHQOAYD---LSTHYABQ---GNHRLFEAQ----- 247
Db 229 FQIPQKILSLDALEAILQDLNRYHVSVPYVWPNLKKMYKDKPITNTAEFTARIDVMSW 288
Qy 248 -----RNLFAGYSF-----PEFKDSPRWQGTGISVLNTEIKKQVYADG 285
Db 289 LNFKNLTLLRQELDDWINRSPSSDNCQDFDGVQW-NCKMKILAEQLMKEKNIES 347
Qy 286 MQFELSPIYHVAADIFLKAYGSAKRVNLEK-----EFP-----Q 320
Db 348 I-FQKKIFPLSPWFMFKLHPFIVYRETLTKMNIKYPYVERLSLLAFVYLKKEVILTEL 406
Qy 321 SYVQTVENMIALISISLPDYN-----PMEGDSWITDK 354
Db 407 SYARKLNPTMMIDQMDIDDFNAFIRLSVOLKYLTKYCSNLPFDVDFPTFENTVI--- 463
Qy 355 NFRMAQFASWARVFPANQAIKY-----FATDGKQG-KAPNELSK---ALSNAQFYTF 402
Db 464 -----BAIRYLFFLLNLKLIIDSKQNFKAPELLKQNFPTFA-----NASEA--- 505
Qy 403 RSGWKNATVMVLKASPEGPHQPDNGTFEL---FIKGRNFTPDAGVYVSGDEAIMKL 459
Db 506 -----NGAETVI-----PNEFLKTLRLVHLKQFVLLKQNFPTFA-----NASEA--- 547
Qy 460 RNWYQTRIHSSTLTDNONMVTIKARQNKWETGNNLDVLTYNPSYPNLDHQRSLFINK 519
Db 548 EKW-----LSSIFENLGAMKRLNRF-----SNILVKAFQNSAVYQINHAQV---K 592
Qy 520 K-----YFLVIDRAIGATNGLGVHW-----QLKEDSNPVDKTKNR-----VYTYRDG 564
Db 593 KLDKAHYFLVYS---GNTFESSGVYMFAPPELLGCDNDTILRLNKSIGCDLVKPLDIG 649
Qy 565 NNLMQSLNADRTSLN-----ELEGKYSY---VYNKELKRPAPFVEKPKKNAGTQNF-- 613
Db 650 NNLNVYDITTKETDLNIIIVSKGEDSGKIPYRVVANSSSDLDRHAHQSKKNFSDPDQ 709
Qy 614 -----VSIYVP-----YDQKAPKPEISIRENK---GNDPEKGL- 643
Db 710 HLDEKKNNEVFEVALSGLVLYPGEVYVWDG---PVYKLPGNLFGASNEMDLGKIG 766
Qy 644 --NLTLTIN 650
Db 767 NPNTLILIN 775

RESULT 12

US-10-130-973A-8
; Sequence 8, Application US/10130973A
; Publication No. US20030147895A1
; GENERAL INFORMATION:
; APPLICANT: Shone, Clifford
; APPLICANT: Sutton, John

US-10-369-493-13471
; Sequence 13471, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; PRIOR FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 13471
; LENGTH: 871
; TYPE: PRT
; ORGANISM: Thermoplasma volcanium
US-10-369-493-13471

Query Match 3.3%; Score 114; DB 15; Length 871;
Best Local Similarity 18.2%; Pred. No. 0.39;
Matches 136; Conservative 94; Mismatches 261; Indels 256; Gaps 31;
QY 66 YREKSKAREPDSNAEK-PADIRQIDKVTREKADKALVHQFQPHKGYGFDYKDLNW 124
DB 10 YYPINKIL--DGKREKLEPSRLILLESVMRNLDRSITQD-----DIDAIYNW 57
QY 125 QMWPKDNEVRQHLRVKQWQAMALVYHATGDEKYAREWVYQYSDWARKNPLGLSQDNX 184
DB 58 NPSNVPDKIEIFKVSrv-----VMQD--- 78
QY 185 FWRPLEVSDRVQSLPFTSLFVNSP-AFTPAFLMEFLNSYHQADYLSTHYAEGNHL 243
DB 79 FTGVPFVVD--LASMRDVTVKLGKDPQLNPFQVRVDLVIDHSQVDYVYGESFATEKNEEL 136
QY 244 FEAORNL-----FAGVSPEEK----- 260
DB 137 -EFNRNLERYFLKWAQKSFNFRVPPGTGIIHQVNLLEYLAEIFDYEEKRYAYPDT 195
QY 261 ----DSPRWRTGISLVN-----TEIKQVYADGMQFELSPIYVHAAI 299
DB 196 LVGTDSTMTMGIGVLGWGVGIEAALLGQPTISLPEVIGVRLHGLNP--GVYAT 253
QY 300 DIFLKAYGSAKRVNLEKEFPPOSYQVTVENMTM---ALISISLPDYNTPMFGDSWITDKNF 356
DB 254 DLVLITITELLKRVNVVDKVFVEFFGSPVKYLSVPERATVSNMCPBYGATL----- 302
QY 357 RMAQFASWARYPPA-NQAIKYFATDGGKQKAPNLSKALSNAAGYTFPSGWDKN----- 409
DB 303 -----ALFFIDDQTLDIRTGRSDHKIKIKKYLELQGMFGESEBGEYTKVIDLD 353
QY 410 -ATVNLKASP-----PGEFHAQPDNGT-----FELFKGRNFTPDAGV 447
DB 354 LSTVKPSVAGPKLQORLDLDQVSPSSFLSSVESDLSHLVRKVLKLGQD-----V 407
QY 448 FVYSGDEALMLRNWYQTRIHSTLTLDNQNVITTKARQNKWETGNLDVLTYNPSYPN 507
DB 408 ELSGDIVIAAITSC---TNTSNFYVMLAAGLVAKA-----VELGLKVNPKVKT 454
QY 508 -----LDHQRSVLPIFKKYFLVIDRAIGETGNLGV-----HWQLKEDSNPV 549
DB 455 SLAPGRSVTDTLTESGLIDYLDKGLFVLGVYGGTTCIGNSGPKDKVDKVDIAIKNNLVV 514
QY 550 PDKTKNRVYTF--YRD--GNLMTQ-----SLNADRTSLNEEGKVSIV----- 589
DB 515 SVLSGNRNFARIHKDKVANKYVLPPLVAVAIAGNTITNLDKPLGEVNGKKIYLDIOW 574
QY 590 -----YNKELKRPFAFVPEKPKNAGTGNFVSI-----VTPYQCKAPETISIRENK 634

DB 575 PSNNEIKDAVNKYVKE--MYEKRYGNITNKRWESIDVPESPVYNWD-----ESSTYIRN 627
QY 635 GNDPEKKGKLN---LTLTINGKQQLVLV 658
DB 628 PPFENFKLNBLISTFSVKGAYPLLI 654
RESULT 15
US-10-369-493-5864
; Sequence 5864, Application US/10369493
; Publication No. US20030233675A1
; GENERAL INFORMATION:
; APPLICANT: Cao, Yongwei
; APPLICANT: Hinkle, Gregory J.
; APPLICANT: Slater, Steven C.
; APPLICANT: Goldman, Barry S.
; APPLICANT: Chen, Xianfeng
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
; TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
; FILE REFERENCE: 38-10(52052)B
; CURRENT APPLICATION NUMBER: US/10/369,493
; CURRENT FILING DATE: 2003-02-28
; PRIOR APPLICATION NUMBER: US 60/360,039
; PRIOR FILING DATE: 2002-02-21
; NUMBER OF SEQ ID NOS: 47374
; SEQ ID NO 5864
; LENGTH: 899
; TYPE: PRT
; ORGANISM: Caenorhabditis elegans
US-10-369-493-5864

Query Match 3.3%; Score 114; DB 15; Length 899;
Best Local Similarity 17.8%; Pred. No. 0.41; Indels 220; Gaps 34;
Matches 120; Conservative 100; Mismatches 100; Indels 220; Gaps 34;
QY 14 VIALSSGNILAQSSSITRKDPDHLINLEYSGLEKYNK---AVAAG-----NYDDAAK 61
DB 291 LLALCVGH-FSNLATVIRTVGLTVTWISMGMEQYGEFALNVTAGTIDPMENYFSDFLK 349
QY 62 AL-----LAYREKSKARE-----PDFSNAEKPADIRQIDKVTREKADKA 102
DB 350 KLDVWALPEYTMNAGAMENWGLIIGEYSLFMFDPDYATR---DITEVAETTAHE----- 401
QY 103 LVHQFQPHKGYGFDYKGDINQWMPVKDNEVRQHLRVKQWQAMALVYHATGDEKYARE 162
DB 402 VVHOW-----FGDIVTLDW---NDIFLNEGFAQYWFANGI-----DNTPFEQ 441
QY 163 WYQYSDWAR--KNPLGLSQDNDFVWRPLEVSDRVQSLPFTF-----SLFVN--SP 210
DB 442 HAYSI-DYNRPFYMHIALKYDCIFGAKPV-----ISDTPFVFGIEPYKGSALLNLNN 495
QY 211 AFTPAFLMEFLNSYHQADYLSTHYAEGNHLRFEAORNLFAGVSFPEFKDSPRWQGTI 270
DB 496 VLTPAVFQEGSLSSVLTQGYVNA-----SPRNL-----WTSLTV 529
QY 271 SVLNTETKQVYADGMQFELSPIYHVAADIFLKAYGSAKVNLEKSP-----QSY 322
DB 530 AQRHNITDW---NQQLDVSS-----FMDPY-----TLQTSPIITLTLTGST 571
QY 323 VQTVENMIMALISISLDPDNTPMFGD-----SWITDKNFRMAQFASWARYPPANQAIK 375
DB 572 VQANQSCMSDETL---WNVPLFTQTPGALDFNKV--NFTGGNDATLWRPLTGYRV-- 624
QY 376 YFATDGGKQKAPNLSKALSNAAGYTFPSGWDKNATVMVLKASPPGEFHAQPDNGTFLF 435
DB 625 -----DNAGSTSPARINDKSWISYQAQLLSNMNTM-----SSTRAML 664
QY 436 IKGRNFTPDAG-----VFVYSGDEALMLRNWYQTRIHSTLT-----T 473
DB 665 LDDANFFYQSGRWEMTKFLDLTLVNVED-----SLAPWEQAEFFETMLNRFQYQPEIDT 720
QY 474 LDNQNVITTKARQNKWETGN--LDVLTYNPSYPNLDHQRSVLFIKKYFLVI 525

Db 721 VRNYVIQITKNAVSKFQWNTNGLWANDRIVQLLVNNVNNLAVNRQSRQVALTLFNNFVLKC 780
QY 526 DRAIGEATGNLGVHWQKE-----DSNPVFD-KTKNRVYTTY-----RDGNNLM 568
Db 781 KYLSGCGKCSGIHPNLRQPTYCYGLRQSNIDDFTTVNNLYSWFVQVQAGYLOTDSNLL 840
QY 569 -----IQSLNADRTSL 579
Db 841 NALGCVQNLDLQKTML 856

Search completed: March 10, 2004, 15:05:33
Job time : 42 secs

This Page Blank (uspto)